

Rocky Mountain

Administrative History



CHAPTER IX: WILDLIFE MANAGEMENT ^[1]

The management and conservation of wildlife in Rocky Mountain National Park have posed special problems for its officials ever since the Park's inception. In part, the problems arose from the dual objectives that were established for wildlife management in national parks. According to the Act of August 25, 1916, which created the National Park Service, the agency was instructed to

conserve the scenery and the natural and historic objects and wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

^[2]

During the ensuing years, Park officials worked out a reasonable balance between conserving wildlife and providing for its enjoyment. Neil Guse, Wildlife Biologist for Rocky Mountain National Park, later explained the philosophy of wildlife management in the following terms:

The application of wildlife management in a National Park today is governed not by the principle, as is the goal of certain other land use agencies both Federal and State, of providing an optimum sustained production crop of wildlife for harvest. It is more nearly, the attempt to arrive at a natural, harmonious union or balance between the present wildlife population and their environment which was disrupted by the coming and subsequent actions of the white man. This is our immediate objective, particularly of the elk and deer numbers, and to a lesser degree, the bighorn sheep, in Rocky Mountain National Park. ^[3]

Initially, the policy of Park administrators aimed at insuring an abundant supply of animals to complete the picture of a wholly natural, wilderness condition. Early administrators apparently did not anticipate the day when herds of elk and deer would exceed their available forage supply. Later Park officials had to face this reality. These officials had to deal with a situation for which there seemed to be no satisfactory solution. To understand and evaluate their responses, it is necessary first to review conditions during the period before the Park was established.

In the middle and late nineteenth century big game was plentiful in the area now occupied

by Rocky Mountain National Park. Milton Estes, son of the founder of Estes Park, later recalled that during the latter 19th century

the Park was a paradise for the hunters. . . . There was no end to the game, for great bands of elk, big flocks of mountain sheep and deer were everywhere . . . so plentiful that we could not suffer for anything to eat or to wear. . . . We never killed any of the stock for food, for there was plenty of wild game. [4]

Range conditions were quite adequate to support not only wild game but also the domestic stock of the Park's pioneers. Early residents of the area reported that there were few times when it was necessary to provide special feed for cattle ranging in the vicinity.

Ironically, the accessibility of the wild game contributed to their near extinction. Much game was killed to support the rapidly growing populations of the valley towns and gold camps. Pioneer accounts indicate that, prior to 1900, elk and deer carcasses were taken from the Estes Park area by the wagon load. So extensive was the slaughter that from 1900 to 1910 wild game became scarce. Milton Estes, returning to his former homeland after an absence of thirty years, reported seeing "The same old mountains, hills, valleys and streams, but no wild game." [5]

While the amount of all wild game had diminished, the number of deer had not suffered as greatly as the elk. Deer were less gregarious and smaller, therefore less productive of marketable meat. Moreover, the deer made a rapid recovery after the creation of the Rocky Mountain National Park in 1915. From an estimated population of 600 in 1915, the herd was reported to have risen to approximately 4,000 in 1923.

On the other hand, even before 1915 dramatic steps were necessary to save the vanishing elk herds. Twenty elk were reintroduced into Roosevelt National Forest from Yellowstone National Park in 1912. When this planting proved unsuccessful, further shipments were tried. In 1913, twenty-five elk were unloaded from a railroad car at Lyons, Colorado, and taken by truck to the Elkhorn Corral at Estes Park. Only twelve head survived the trip. These were then driven to Horseshoe Park and freed. Again in 1914, twenty-two more elk were released in the Park area. The Forest Service paid for the shipment of these elk from the Yellowstone Park region to the railway terminals, and popular subscription made possible the rest of the trip. In 1915, there were an estimated thirty head of elk within the Park's boundaries. [6]

These elk, along with other big game, thrived under the protection of the Park. Not only did officials prohibit public hunting in the Park, but in 1917 they also began to eliminate predatory animals. Superintendent L. C. Way reported in 1913 that wild game were flourishing without exception. Elk were "in the best condition and increasing rapidly." Mountain sheep were "so numerous that I feel like saying that we have the largest band in the United States." Deer were more plentiful in the Park than any other animal." [7]

Way took an active, almost paternalistic, interest in the welfare of the game. Commenting

on the hunting of deer outside the Park, he worried that:

much of our game strays outside the Park boundaries, and if not killed will again learn to fear human beings, and we will lose the confidence of the wild creatures that we have gained within the past few years. [8]

Residents of the area shared his concern and appreciation of the game. In 1918, he reported:

The local people are beginning to realize the value of game, and I look forward to their hearty cooperation in the preservation of the . . . wild life. . . . The increase in the numbers of game in the past two years is almost unbelievable to the local people, as well as a source of great satisfaction to them. [9]

The creation of the Colorado State Game Refuge in 1919 further stimulated the increase of wild game in the National Park. The Refuge embraced a section of the Colorado National Forest, which joined that part of the National Park lying east of the Continental Divide. Later in 1927, the boundaries of the Refuge were made contiguous with the entire eastern boundary of the Park, thereby adding additional protection and winter range. Though the Game Refuge was opened to hunting in 1939, it had done much to provide the time necessary for the recovery and increase of the Park's wild game. [10]

As added insurance that the desirable species of wild game would multiply, the first full-scale predatory animal control program was started in 1922. Classified as "predatory" animals were mountain lion, bobcat, wolf, fox, lynx, and the most numerous of the lot, the coyote. The program was launched early in January, when Park Superintendent Roger W. Toll, Predatory Animal Inspector Stanley P. Young of the U. S. Biological Survey, and his associate, John W. Crook, met with the newly formed Estes Park Fish and Game Commission. This meeting led to a decision to "open war" on coyotes and mountain lions with the idea of "practically cleaning out those pests from this district." Both poisoned bait and trained dogs would be used. [11]

The Estes Park Trail left no doubt that the campaign was supposed to be merciless and decisive. With a hint of sadism it reported:

Dainty morsels of horseflesh will be served Messrs. Coyote and Lion a la Grubb fresh from Frank's pastures and the local Newhouse wizards Hayden and 'Bobcat' Becker will give Trapper Crook all the necessary pointers. . . . Mr. Crook has a pack of nine trained dogs and we anticipate there will be fur flying ere long. [12]

Young and Crook instructed the Park rangers in the application of poisoned bait and other methods of predator control. During their two week visit in the Park they helped provide for the killing of four lions, two coyotes, and one bobcat. Thereafter, most of the actual trapping, poisoning and shooting was performed by the rangers, although a limited number

of permits were issued to hunters to trap predatory animals.

Rangers were first allowed to retain part of the funds, generally twenty-five per cent, derived from the sale of pelts taken in the control programs. This was offered as compensation for expenses involved in poison, traps, feed for horses and ammunition, all of which came out of the ranger's salary, then about \$900 per year. This "kickback" induced rangers to become enthusiastic about eliminating the predators. Later, the government sold the pelts through public auction and the rangers were reimbursed only for expenses. [13]

Park Superintendent Toll stood consistently behind the predator control program. Initially, he had declared that "there are too many predatory animals in the Park for the good of the game." [14] In November 1924, as the control program for the year neared a close, he wrote:

It is my opinion that predatory animal control should be continued in this park. I would consider it advisable to reduce the number of mountain lion, coyotes and bobcats to the lowest practicable numbers. [15]

Rocky Mountain National Park was not alone in this particular game management practice. Yellowstone National Park was reported to have killed more predatory animals than any other park. Intensive predatory animal control continued at Rocky Mountain until 1926, when the Park officials began to realize that the campaign against predators was essentially contrary to national park philosophy. [16]

There is little doubt that this control program stimulated the growth of deer and elk herds—so much so that their very numbers proved a threat to their continued vitality. In September 1930 the Superintendent's report showed for the first time a concern about the carrying capacity of the range. Due to abundant summer forage, the Park's wild game appeared to be in good condition. Yet superintendent Edmund Rogers warned:

Some apprehension is felt for the herd this winter, since the lower altitudes, inside and outside the park, are well grazed by domestic stock during the summer months. It is high time that some provision were made for winter feeding, else the herd will become a nuisance to nearby ranchers. [17]

With the coming of colder weather, Rogers' fears increased. "It is a source of wonder," he maintained,

how deer and elk can remain in good shape on range that has been already well grazed off by livestock during the summer months. However, they seem to be doing very well so far, but the range must now be near its maximum capacity. [18]

This limit was soon reached and even exceeded, yet neither the townspeople nor the Park officials wanted the herds artificially reduced. Consequently, hungry elk increasingly broke down fences and destroyed haystacks along the North Fork of the Big Thompson River, and

3,600 deer "munched away" on browse plants already thinned by a six-year drought.

A hostile public reaction met any plan that involved harming the big game. A case in point occurred in November of 1931 when the State of Colorado considered opening Larimer County—including all of the Park's winter range—to elk hunters for a special five-day hunt. This threat to the Park's elk was met with a broadside of angry recrimination.

Superintendent Rogers predicted that "the whole herd could be exterminated" if driven to lower elevations by early snows. [19] The Estes Park Chamber of Commerce, American Legion, Rotary Club, and Game and Fish Association joined in the protest. Rogers noted with satisfaction that "The Village of Estes Park and all its organizations were one hundred per cent opposed to any open season in this section." [20] Confronted with this barrage, the state redesigned the hunting area to protect the winter range from the hunters. Still necessary was some way of protecting the winter range from the elk and deer.

The summer range was ample enough to satisfy many times over the number of elk and deer in the Park. The winter range, however, was made up largely of the lowland meadows, which consisted of patented land subject to heavy grazing by horses and cattle. The scarcity of food was indicated by the number of aspen trees stripped of bark. Some conservationists regarded the elk situation as "precarious." [21] Deer, on the other hand, fared much better than elk. They fed mostly on browse plants and therefore were not in direct competition with livestock.

In 1932, the national government eased the problem somewhat when it purchased for the Park extensive amounts of private land in the Beaver Meadows, Mill Creek, and Horseshoe Park areas. By 1933, livestock had been prohibited from all winter range within the Park, except in Moraine Park. The effect of the land purchases was, according to Rogers, "remarkable." [22] Seemingly the winter range problem had been reduced in seriousness, if not solved. Yet, despite the increased range, "barking" of the aspen continued. In previous years it had been assumed that this gnawing had been due to a lack of forage. This continuing damage to the aspen prompted the initiation of detailed studies by employees and wildlife technicians assigned to the newly created Civilian Conservation Corps. [23]

During 1933 and 1934, twelve small enclosures or "check plots" were set up on the winter range where animal concentrations were the heaviest. These enclosures were twenty feet square and were built with steel posts, each two of which were connected by two strands of woven wire. These plots were used in studying the effect of protection upon the vegetation. Also, unfenced plots were used to determine the effects of browsing on different shrubs.

These investigations showed that grass growth in the area was better than at any time during the previous four years. The status of browse plants, however, showed no improvement, largely because of over-grazing before the lands were acquired by the Park Service. Some method to control the browsing by deer constituted the most difficult problem on the winter range. The aspen, bitter brush, willows, and sage brush were being heavily drawn on as a source of food. Even young pines and firs, species not ordinarily eaten by deer and elk, showed signs of browsing. [24]

The seriousness of the range condition was reflected in Park wildlife reports for 1933 and 1934—reports which continually hinted at imminent catastrophe. Some typical comments were: "the range is being more heavily used than ever"; "some control measures may be necessary"; "the winter range is making a desperate effort to come back." Other reports concluded: "The range is not in good condition and is not sufficient for our present population"; "problem is in the waking here and must be closely watched"; "vegetation is steadily decreasing." [25]

To complicate the problem further, the natural balance between predators and the wildlife was decidedly out of kilter. The merciless predator control campaign of the 1920's had diminished a natural check on the increase of other forms of wildlife. In the mid-1930's some officials advocated outright protection for the predators. They believed that control of the amount of other forms of wildlife by predators was preferable to indiscriminate shooting because the lion and coyote killed already weakened and sickened animals, whereas hunters aimed for the best specimens.

One of the most emphatic voices on behalf of the coyote belonged to Dorr Yeager, Rocky Mountain National Park Chief Naturalist. He concluded:

The fact that the deer are on the increase and that we have more than the range can accommodate seems . . . the best argument for the continued welfare of the coyotes. Leave the two species alone and they will strike a balance. If not then control measures will be adopted. At the present time, however, the deer and not the coyotes need control. [26]

The problem and its alternative solutions could not have been better stated. There was apparently not enough winter range to sustain the Park's deer and elk herds. Little if any prospect of additional land purchases by the government seemed likely in the foreseeable future, and the official efforts to reduce predators had left too few to re-establish a natural and suitable wildlife balance. Superintendent Rogers presented his understanding of the situation in the 1935 Annual Report, when he wrote:

It would appear that the most satisfactory way out of the present unstable situation would be to artificially reduce the number of elk and deer to the carrying capacity for the available range. Artificial control of these two species seems to be necessary within the next several years. [27]

While Park officials were finally facing up to the deterioration of the range, they were perplexed by another wildlife problem. The number of bighorn sheep was diminishing and no one seemed to know why. So beginning in 1935, Rocky Mountain became one of four national parks selected for the study of the habits of the bighorn in order to determine the reasons for the decline. Older residents had reported that previously there had been several thousand bighorn sheep within the Park's present boundaries. About 1875, bands of 100 or more were counted in Moraine Park and Horseshoe Park, while others were spotted at Mary's Lake. [28]

Study revealed that the coming of white settlers caused the initial decline in bighorn numbers due to extensive hunting for market and sport. Whole flocks were exterminated at Sheep Rock near Mary's Lake. Restriction of the lower winter range following the introduction of domestic stock, and the infection of scabies was another factor contributing to the initial decline. Pioneers reported that sheep died by the hundreds between 1878 and 1906. But from 1909 to 1921, the bands increased in numbers and in health. Bighorns were plentiful again in places from which they had been nearly extirpated. This increase was believed to be due primarily to the removal of elk as a competitive factor through excessive hunting. Moreover, the sheep had become tame. In 1918, Superintendent Way counted forty-one mountain sheep during a one hour's drive along the High Drive Road. Way also reported that often the sheep ate with his horses no more than 100 feet from his house. [29]

These favorable conditions did not last long, for by 1920 the elk had recovered sufficiently to compete again with the bighorns for the available range. This competition factor led to another period of decline in bighorn numbers. Another reason for the reduced numbers was the apparent deficiency of mineral salts in the granite soils of the range. The loss of lower ranges to the elk and deer where mineral salts were once obtained was believed to account for the reduced stamina of the sheep and the increased susceptibility to internal parasites. Artificial salting had been tried, but with inconclusive results during the early years of the Park.

Additional factors which affected the sheep adversely were the lungworm, coccidia and other parasites discovered in autopsies of dead sheep found in the Park. Several sheep showed symptoms of pneumonic infection during 1939 and 1940. No valid records exist of scabies among the Park's bighorn between 1906 and 1940, but in 1943, a ewe was found heavily infested with scab mites at Sheep Lake. Recent studies have indicated a high mortality among new-born lambs, a factor which has tended to keep the herd size stable. [30]

The major wildlife problem in the Park, of course, concerned elk and deer. In December of 1937, a wildlife census was taken by Merlin Potts (Senior Foreman Naturalist of the Emergency Conservation Work), Ranger Harold Ratliff, and Park Naturalist Howard Gregg. The census resulted in an actual count of 648 deer and 263 elk, although later estimated figures for the winter range showed 810 deer and 329 elk. Even the estimates were considered to be on the conservative side. The condition of the game at that time appeared, in general, to be "fair to good." The problem of an adequate winter range seemed "slightly less acute" than formerly. Still Potts maintained that a reduction in deer numbers would soon be necessary if the range condition and upward population trend continued. [31]

For a brief period, the trend was reversed. In the spring of 1939, the deer count showed a slight decrease from the previous year. This decline was attributed to drastic winter starvation and an increase in coyotes. Nevertheless, the month's use of the winter range was bringing over-browsed conditions on all of the lower feeding grounds. And the number of elk was rising. For instance, in 1940, the numbers in the elk herd increased twenty-five per cent over that of 1939, and thus compounded the deer problem. Harold Ratcliffe reported:

The annual increase of the elk herds which do not migrate beyond the eastern boundary of the park is a factor which has reached a climax. . . . They can no longer sustain themselves in such numbers without irreparable damage to the range. [32]

A utilization of forty to fifty per cent of the annual forage growth was considered the maximum allowable for the good of the species involved. Much of the range, however, was being utilized to the extent of seventy-five to ninety percent of the new growth annually. Construction of the Colorado-Big Thompson diversion project contributed to the deterioration of the winter range, by blocking the normal migration routes of the deer and elk. Ratcliffe warned:

This heavy use cannot be allowed to continue if the range is to be saved and restored to a carrying capacity of anything like its original status. [33]

To help relieve this situation, adjustments were made in the winter elk hunting season. The regular winter hunt was poorly timed, coming before the big game had wandered outside the protection of the Park boundaries. A special season was therefore arranged by the State Game and Fish Department in cooperation with Park officials to run from November 28 to December, 1941. Licenses were limited to 400 hunters, representing the amount of herd reduction desired. The hunting area extended from the Buckhorn Ranch north of the Park, and followed the eastern boundaries of Roosevelt National Forest south to the South St. Vrain and Middle St. Vrain creeks below the southern boundary of the Park. Excluded was a section surrounding Estes Park village and the Twin Sisters area of the Park. During the ten day special session only ninety-seven elk were killed, far fewer than expected and far fewer than necessary. [34]

Faced with a worsening wildlife problem, Park officials fortunately received special aid. In 1941-1942, a representative of the Pittman-Robertson Federal Aid to Wildlife Research group conducted an elk-range-and-food study in the Park. The Pittman-Robertson Act for 1938, made such wildlife surveys possible annually with the aid of federal funds. Counting crews began work in the fall of 1941 to determine the sex-age ratio of the elk. This count indicated the size and nature of the average "family group" in deer and elk herds. After this ratio was determined, a complete census was undertaken by employing both airplane and ground methods as quickly as possible, counting in an area where natural barriers prevented the drift of herds, thus eliminating duplications. In rugged regions, too vast and thickly timbered for complete coverage, a count was made in sample areas of known square mileage, and an average obtained for the entire area. The last phase of the count involved tallying the winter death loss. This type of census was estimated to be ninety-seven percent correct. [35]

The conclusions of this careful study probably surprised some local wildlife observers. The study reported

an elk herd of approximately 1400 head may be carried in the Park, east of the Continental Divide, without over-populating the range. . . . if range

damage, particularly on browse species is occurring in the Park at the present time by overpopulation of a game species, it appears to be an oversupply of deer rather than elk. [36]

Park Naturalist David Condon weighed this report with the backlog of earlier wildlife studies. He concluded that artificial reduction of both elk and deer herds was still necessary. In his report he advised

the elk and deer herds in Rocky Mountain National Park be reduced to and maintained at the optimum numbers for the available range. . . . To attain this objective, 300 elk and 200 deer should be removed. . . . [37]

This report was submitted to the Director's office where it was approved in December of 1943. After Assistant Secretary of the Interior Chapman added his approval in January 1944, Park officials were authorized to proceed with the reduction program.

The Park officials tried to prepare the local townspeople for the reduction program through such publicity releases as the following which appeared in the Estes Park Trail:

One of the greatest values that can probably be attained through controlling the number of animals which might be found in any given area is that by so doing we provide an environment in which the animal can maintain a fine state of physical health and . . . will provide a picture of vitality and vigor in a delightful background of healthy plant life. The beauty of wildlife is not in numbers but in the setting in which the animal is found and the beauty of the individual specimen itself. [38]

Negative reactions to the planned reduction did not appear in either the major Denver dailies or the Estes Park Trail. Park officials learned, however, that there "were a few local people who apparently mumbled in their beards in a sour grapes manner. . . ." [39]

During a two-month period, 300 elk and slightly more than 100 deer were killed by Park rangers. In this endeavor, the Park secured the reluctant cooperation of the Colorado Game and Fish Department. This department was basically opposed to direct control of the elk and deer populations in the Park, other than by public hunting. Because of the apparent seriousness of the wildlife conditions, Game and Fish officials agreed, in October 1944, to accept and dispose of all elk and deer killed in control operations within the Park. In return for the carcasses, they agreed to supply ammunition, trucks, horses, and feed, when necessary, and assist in research.

Russell Grater, who became Park Naturalist in the summer of 1944, reported on the success of the reduction program. In so doing he added an interesting interpretation of the role of in wildlife management.

From the standpoint of elk, it is now apparent that no serious problem has existed in the past at Rocky Mountain nor had one reached a really serious

point at the time of the reduction program. This conclusion is reached only after noting the over-all excellent condition of the herd and checking the available food supply. . . . Thus, the present reduction program served to avert a range crisis rather than correct one already in existence. [40]

Later he spoke out increasingly against control programs, by declaring:

Out of all these studies has come one definite conclusion. It seems to me to be vital that our philosophy on wildlife management studies be based on averting a problem before it arises rather than controlling the problem after it is with us. It seems to me a basic fallacy to assume we must always have control. [41]

39. Guse, "Administrative History of an Elk Herd," p. 37. One of the critics of the reduction program was R. T. "Dixie" MacCracken, the first ranger in Rocky Mountain National Park. MacCracken and Jack Moomaw, another old ranger, examined some elk carcasses and found them to have good hearts, lungs, and livers. According to MacCracken, "Some guys in Omaha didn't know what they were talking about." Author's interview with R. T. "Dixie" MacCracken, July 1, 1964.

In January 1946, the Director's office cautioned Park officials against a regular reduction program. Assistant Director Hillary A. Tolson stated:

As you are well aware, this office has a strong dislike for 'reduction programs' either inside or adjacent to the National Parks. . . . We would not urge that deer and elk be reduced except for good cause. [42]

Range studies following the first reduction program were discouraging. They indicated that serious damage to many browse plants was continuing and that native grasses were also being depleted. By 1948, Park observers noted that some plant species, such as aspen and willow, were actually disappearing from areas where growth should have been luxuriant. The "problem range" of the Park lay east of the Continental Divide. The animals on the west side were driven by weather into legal hunting territories and were thereby controlled.

The annual elk and deer census of that fall showed 1,267 mule deer and 932 elk in the Park area. Indeed, the population trend of elk and deer seemed destined to climb. If it did, it would result in heavier abuse of the already weakened plant growth and the serious weakening and possible starvation of the animals themselves. Consequently, a second reduction program was proposed for the following winter. In an effort to placate sportsmen, final approval for the reduction was delayed until the results of the regular hunting season were tabulated. [43] When the public harvest of elk and deer proved to be mediocre, officials decided to hold a control program in the Park between November 28, 1949 and February 1, 1950.

To some insufficient critics, this decision was abrupt and accompanied by publicity. The

Estes Park Trail editorialized:

Out here, we think quite a bit of our deer and elk—both in and out of the cold storage locker. We realize that they are a tremendous asset as a tourist attraction.

We likewise realize that game management is about the same as wise domestic animal management; when the numbers are too great for the forage and range, then some of them must be sent to market.

Admitting all these factors, we still believe that Washington officials . . . for better public relations—should have preceded this reduction program with an educational program. Folks around here don't mind a necessary reduction program, but they want to have the facts and know that it's necessary. [44]

This second extensive control program resulted in the removal of an additional 340 elk and 100 deer from the winter range. The reduction brought the number of elk in the Park down to about 500, the estimated carrying capacity of the winter range. Additional help in the control of excess deer came from an especially heavy public harvest of animals outside the eastern boundary of the Park, for public hunters killed 1,406 deer during this same season.

Park Superintendent David Canfield remembered that the reduction program caused "a pretty rough time." Game was still held to be "sacrosanct" by many of the local people. One man wrote Canfield protesting the reduction and stating that one of the great joys of his life was to see the elk roaming the Park. Now he would never again hear their "glorious burgling" [sic]. [45] Nevertheless, the idea of an annual reduction program seemed desirable to Park officials. To Chief Ranger Lynn Coffin, annual control was, in fact, imperative. In his report on the reduction, he declared:

Had the control program been continued on an annual pruning basis since the winter of 1944-45, the Park would not have been faced with the problem which confronted it in 1949. [46]

Coffin proposed an annual elk reduction program equal to the annual increase of the herds, which meant about seventeen percent of the herds' numbers. With some minor changes, his plan was approved on August 22, 1950. Park officials believed that 500 elk and 800 deer could subsist on the critical winter range.

The Estes Park Trail gave its grudging support to the annual reduction program. It noted that hunting was becoming more difficult as areas bordering the Park became more inhabited. It admitted that transplanting elk to already well-stocked forest areas was both costly and unwise. Artificial reduction, therefore, seemed to be the "only out." The Trail concluded:

It would seem that our deer and elk will be 'mostly for show' from here on . . . and that they will have to be kept to certain numbers by artificial means. . . . None of us likes to think of an annual control program, but as we crowd

around in our little world we seem to do many things that we do not really wish to do. [47]

Park officials were loath to admit, at least publicly, that they were solely committed to control by shooting. In November 1951, Superintendent Canfield announced that more than 100 deer would be live-trapped within the Park that winter and transplanted east to the Roosevelt National Forest. To facilitate this exercise, corral posts were erected just west of Estes Park village on Buck Creek. Netting ten feet high was stretched on the posts. A chute was then placed on one side of the enclosure.

The purpose of the control program was not only to prevent damage to the range but also to break up and scatter the sedentary herds within the Park so they would migrate and become fair game for the public hunters. A Park ranger reportedly told the Trail that it was hoped the experiment in live trapping would "demonstrate the desirability of this method of control." [48] Between 1950 and 1953 a total of sixty-two deer was trapped and transplanted to other locations, generally from along the South St. Vrain highway near Allenspark.

Though more humane than reduction by shooting, the trap method did not replace the gun as the major tool in game management. From 1950 through 1960, 225 deer were killed by Park rangers. Annual public hunting outside the Park boundaries also helped relieve the pressure on the winter range. The peak years for public hunting were 1959, when 1,370 deer were killed, and 1961, when hunters took 1,408.

Meanwhile the annual reduction campaign aimed at the Park's elk herds was having some effect. From 1950 to 1960, 505 elk were destroyed in connection with the wildlife management program. The greatest number, eighty-nine, was killed in the 1951-1952 season; the least, sixteen, in the 1957-1958 season. Of the total, 212 were males, 293 females. The age classes represented were: seventy-two calves; forty-six yearlings; 230 two-to-five years old; and 157 five years and older.

By 1960 there were still over 600 elk observed on the winter range. It was evident that the annual reduction program was insufficient to allow full and necessary range recovery. So a quota of 200 elk was set for elimination in order to bring the number on the winter range down to 400. However, after 140 animals had been removed, a halt was ordered, pending the completion of studies for a new long range management program. [49]

While these studies were being conducted, Park officials co-operated with the state in consistently recommending and encouraging more liberal hunting in areas adjacent to the Park. The Park administration had also recommended extended hunting seasons, additional open areas, post seasons, and licenses permitting the killing of male or female elk. Some of these recommendations bore fruit, as will be noted below. But the problem persisted east of the Divide. The problem herd wintered on the slopes of Mt. Ypsilon on the north to Alberta Falls on the south, and from Fern Lake on the west to the Park boundary on the east. To survive during the winter an elk required about sixteen pounds of food daily. This meant that the eastern slope herd of 510 animals consumed eight tons of grass, willows, and aspen

each day. [50]

In October of 1962, Colorado Game and Fish Department Director Harry Woodward called on Secretary of Interior Stewart Udall to allow a pilot program of controlled hunting in the Park, itself. [51] When rebuffed, Woodward took a more dramatic step. In 1963, he announced a special pre-season hunt for elk in the region east and north of the National Park. The hunt extended from January 26 through February 17 and was opened to resident and non-resident hunters alike, with a bag limit of one elk of either sex. Many land owners opened their land for the hunt. Through the efforts of the Colorado Cattlemen's Association and the Game and Fish Department, ranches were tied into a network of headquarters. Concentrations of elk were reported to all cooperating ranch owners. In this way, hunters were kept informed of the location of the elk. [52]

Officials of the National Park said they "welcomed" the special hunt. Chief Ranger Stanley Spurgeon and his men stood ready to cooperate with hunters who shot elk outside the Park and tracked their prey to the Park boundaries. The Estes Park Trail was told that if the kill was sufficient, other methods for keeping the herd "in balance" with the range would not be necessary. One Park spokesman added, "We hope that hunters are able to get them." [53] The hunt was generally successful, with over 400 kills reported. A veritable army of 4,933 hunters had descended on the area. Local residents, many of whom were successful in "getting an elk," voiced favorable comments on the hunt.

Perhaps of more lasting value has been the meaningful cooperation exercised among the Forest Service, the Game and Fish Department, and the Park Service in the tagging and transplanting of wildlife. On December 18, 1962, a "Memorandum of Understanding Covering the Rocky Mountain Cooperative Elk Studies" was signed by all participating agencies. [54] According to this "Memorandum," it was agreed to mark and release the first eighty elk trapped and then transplant a minimum of twenty animals near Craig, Colorado. Through this program the migration habits of the elk could better be studied to the end that public hunting seasons and hunting areas could be more intelligently planned.

On February 26, 1964, for the first time in Park history, elk were transplanted from Rocky Mountain National Park. Fifteen of them were transferred to Danforth Hills, southwest of Craig, Colorado, through the cooperation of the Park Service, the Colorado Game and Fish Department and the Craig Jaycees. A Park Service official claimed that transplanting was "the best possible solution to the surplus elk problem. It will probably eliminate the necessity for future direct control." [55]

According to Park Superintendent Allyn Hanks, "the highlight of two years of elk research" was a combined meeting of the Advisory Council and Technical Committee of the Rocky Mountain Cooperative Elk Studies, held at Park headquarters on March 20, 1964. In attendance were representatives of the Colorado Game and Fish Department, Roosevelt National Forest, and Rocky Mountain National Park. Also present was Neil J. Reid of the Midwest Regional Office of the Park Service. The group determined to continue the trapping and marking program and to extend aerial coverage west of the Park. These recommendations were made in an effort to determine the extent of the elk population

summering in the area and the possibilities of harvesting an appropriate number of them.
[56]

The elk and deer problem in Rocky Mountain National Park was not solved by 1965. Neither was there a solution for the continuing demise of the bighorn sheep. Perhaps the wildlife in the Park, as well as in other national parks, will remain in but an imperfect balance with the available range. As long as wildlife engineers are saddled with the dual imperative "to conserve the . . . wildlife . . . and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations," only an imperfect solution can be achieved. In all probability the day has not passed when the ranger must once again "wet his sight" and bring down the elk and deer in Rocky Mountain National Park.

ENDNOTES

1. In the title of this chapter, the word "wildlife" embraces deer, elk, bighorn sheep, and some predators. The stocking and planting of fish will be taken up in a later chapter. Birds were not included in any management program and will not be covered.
2. An Act to Establish a National Park Service, in U. S., Statutes at Large, XXXIX, p. 535.
3. Author's interview with Neal G. Guse, Jr., August 12, 1964.
4. Milton Estes, "Memoirs of Estes Park," Colorado Magazine, July 1939, p. 124.
5. Guse, "Elk of Rocky Mountain National Park," p. 7.
6. Neal G. Guse, Jr., "Effective Management Requirements for Eastern Rocky Mountain Deer and Elk Herds," unpublished wildlife report, unnumbered pages, 1962. Rocky Mountain National Park Library.
7. Superintendent's Annual Report, 1918, "Annual Reports, 1915-1930," pp. 18-21. Rocky Mountain National Park Library.
8. Ibid.
9. Superintendent's Monthly Report, April 1918, "Monthly Reports, 1915-1918," p. 5. Rocky Mountain National Park Library.
10. Guse, "Elk of Rocky Mountain National Park," p. 8.
11. Estes Park Trail, January 6, 1922.

12. Ibid.

13. Guse, "Elk of Rocky Mountain National Park," p. 3.

14. Ibid., pp. 1-2.

15. Ibid., p. 2.

16. Guse in his study "Elk of Rocky Mountain National Park," p. 13. recorded the following statistics on the number of predators killed:

<u>Year</u>	<u>Mtn. Lion</u>	<u>Bobcat</u>	<u>Coyote</u>	<u>Badger</u>	<u>Fo x</u>
1917	--	--	4	--	6
1918	--	3	2	--	9
1919	--	7	15	--	--
1920	5	6	20	--	3
1921	2	6	3	--	--
1922	6	20	8	2	3
1923	--	18	10	2	4
1924	4	14	3	2	1
Total	17	74	65	6	26

17. Superintendent's Monthly Report, September 1930, "Monthly Reports, 1930-1931," p. 5. Rocky Mountain National Park Library.

18. Ibid., November 1930, p. 4.

19. Ibid., September 1931, p. 10.

20. Ibid., October 1931, p. 9.

21. Superintendent's Annual Report, 1931, "Annual Reports, 1931-1953," p. 21. Rocky Mountain National Park Library.

22. Superintendent's Monthly Report, December 1932, "Monthly Reports, 1932," p. 4. Rocky Mountain National Park Library.

23. Ibid., January 1933, p. 5.

24. Guse, "Elk of Rocky Mountain National Park," p. 3.

25. Ibid., pp. 4-5.

26. Dorr Yeager, "A Page of Comment: What About the Coyotes?" Nature Notes from Rocky Mountain National Park, January 1934, p. 133-134.

27. Superintendent's Annual Report, 1935, "Annual Reports, 1931-1953," p. 8. Rocky Mountain National Park Library.

28. Guse, "Elk of Rocky Mountain National Park," p. 8.

29. Superintendent's Annual Report, 1918, "Annual Reports, 1915-1930," p. 18. Rocky Mountain National Park Library.

30. Guse, "Elk of Rocky Mountain National Park," pp. 9-10.

31. Superintendent's Monthly Report, December 1937, "Monthly Reports, 1936.1937," p. 5. Rocky Mountain National Park Library.

32. Neal G. Guse, Jr., "Administrative History of an Elk Herd" (unpublished Master's thesis, Colorado State University, May 1966), p. 34.

33. Ibid.

34. Superintendent's Annual Report, 1942, "Annual Reports, 1931-1953," p. 3. Rocky Mountain National Park Library and Estes Park Trail, October 31, 1941; December 12, 1941.

35. Estes Park Trail, April 25, 1941.

36. Guse, "Administrative History of an Elk Herd," p. 35

37. Ibid., p. 36.

38. David D. Condon, "Wildlife Management in Rocky Mountain National Park," Estes Park Trail, May 5, 1944.

40. Guse, "Administrative History of an Elk Herd," pp. 38-39.

41. Ibid., p. 40.

42. Ibid.

43. Ibid., p. 44.

44. Estes Park Trail, February 4, 1949.

45. Author's interview with David Canfield, July 28, 1964.
46. Guse, "Administrative History of an Elk Herd," p. 44.
47. Estes Park Trail, November 17, 1950.
48. Ibid., November 16, 1951.
49. Guse, "Elk of Rocky Mountain National Park," pp. 5-6. The following statistics are given on the removal of excess animal numbers:

<u>Year</u>	<u>Reduction Program-Park</u>		<u>Public Harvest</u>	
	<u>Elk</u>	<u>Deer</u>	<u>Elk</u>	<u>Deer</u>
1941	0	0	97	110
1942	0	0	100	100
1943	0	0		
1944	301	113		
1945	0	0		
1946	0	0	24	
1947	0	0	88	328
1948	0	0	160	495
1949	340	100	137	1406
1950	85	105	337	899
1951	89	107	133	430
1952	63	82	24	667
1953	60	35	42	848
1954	53	24	69	457
1955	40	18	64	717
1956	30	0	147	471
1957	16	0	141	978
1958	41	17	149	633
1959	30	0	149	1870
1960	143	0	180	584
1961	62	0	138	1408

50. Estes Park Trail, January 12, 1962.
51. Ibid., October 19, 1962.
52. Ibid., January 18, 1963.

53. Ibid.

54. Superintendent's Monthly Report, January 1963, "Monthly Reports, 1963," p. 3. Rocky Mountain National Park Library.

55. Estes Park Trail, February 28, 1964.

56. Superintendent's Monthly Report, March 1964, "Monthly Reports, 1964," p. 6. Rocky Mountain National Park Library.